

User-developed applications policy

Introduction and Objectives

Absent the proper governance framework, spreadsheets, Access databases and other user-developed applications (UDAs), can be subject to a variety of unacceptable risks, including calculation errors due to faulty programming logic, non-compliance with the intent of the directive, and even fraudulent activity.

The goal of the UDAs control policy is to set the minimum standards for managing the lifecycle of UDAs within the organization to effectively mitigate risk, prevent fraud, and improve business processes, while enabling compliance.

The objective is to identify those spreadsheets that are most significant to the financial reporting process¹ and determine if controls are in place and whether they are tested in a reasonable manner. To do so, the following three-step approach has been developed. As always, professional judgment needs to be considered and customization of this approach made to suit the individual needs of each area. The three-step approach:

- Spreadsheet inventory
- Risk assessment
- Implement/assess spreadsheet controls

Summary

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1 Definition

UDAs (user-developed applications), regarding financial reporting process:

- Microsoft Excel spreadsheets
- Microsoft Access (database)
- Microsoft Word documents
- Others

¹ Scope: SCIIF (ICFR)

Spreadsheets and other user-developed applications used by the company to perform many important financial and operational processes. Applications that have a significant direct or indirect impact on financial reporting and/or to support key operational processes.

2 Inventory

An exercise must be undertaken to identify all financial UDAs – largely consisting of Excel spreadsheets – across the entire Company.

Using the business process documentation as a starting point, inventory all spreadsheets that are involved in the financial reporting process² and document information such as the spreadsheet name, business process name related to the spreadsheet, location, description of what the spreadsheet does, spreadsheets owners, users and complexity.

The UDAs Policy required that these inventories be kept up-to-date and maintained. However, spreadsheets are created daily and they also get replaced or retired almost as frequently. It's a constantly moving target (see points 7 Ownership and 8 Policy and inventory review schedule).

Note: See Annex I - Inventory_UDAs, *Instructions* tab.

3 Categorizations

Categorizations of the UDAs:

According the use or the purpose (16)	Analytical review
	Financial reporting disclosures
	Posting to the general ledger
According risk levels (7)	Low
	Moderate
	High
According Cycle/Process (8)	Cash Liquidity Management
	Consolidation
	Financial Closing
	Fixed Assets
	Order to Cash
	Purchasing & Account Payables
	Taxes
According complex (18)	Low
	Moderate
	High

Note: See Annex I - Inventory_UDAs (columns 16, 7, 8 and 18)

4 Risk assessment

For each of the spreadsheets inventoried, assess the impact and likelihood of financial statement error.

- **Impact**—When assessing the impact of spreadsheets, organizations should consider the monetary value processed by the spreadsheet as well as how the spreadsheet is used.

² Scope: SCIIF (ICFR)

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- **Likelihood**—When assessing the likelihood of error arising from a spreadsheet, organizations should consider the spreadsheet's complexity, the numbers of users and the frequency of changes made to the spreadsheet.

Impact Assessment			
Considerations for Assessing Impact	Low	Moderate	High
Total monetary value processed by the spreadsheet	<20% of materiality	20-50% of materiality	>50% of materiality
Purpose of the spreadsheet output	Analytical review	Financial reporting disclosures	Posting to the general ledger
Overall assessment of impact: (1-Low, 2-Moderate, 3-High)			

Note: Materiality as define by external auditors

Likelihood Assessment			
Considerations for Assessing Likelihood	Low	Moderate	High
Complexity of the spreadsheet	Low (used for logging or data tracking)	Moderate (simple calculations or minor journal entries)	High (complex modelling, pivot tables, or other data source)
Number of users of the spreadsheet	1 user	<=5 users	>5 users
Frequency of changes to the spreadsheet	Infrequent	Occasional	Frequent
Overall assessment of likelihood: (1-Low, 2-Moderate, 3-High)			

Using the impact and likelihood assessments, calculate a composite risk assessment by multiplying the impact and likelihood assessments together.

Composite Risk Assessment			
Assessment of Impact (1-3)	3 (Low)	6 (Moderate)	9 (High)
	2 (Low)	4 (Moderate)	6 (Moderate)
	1 (Low)	2 (Low)	3 (Low)
Assessment of Likelihood (1-3)			

For instance, a spreadsheet that has an impact assessment of “2” (Moderate) and a likelihood assessment of “3” (High) would have a composite risk assessment of “6” (2*3).

Once the risk rating is complete, establish an action plan to address the spreadsheets. The following action plan is provided as a guideline:

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- Composite risk rating 1-3—The inherent risk of the spreadsheet is low. Implement spreadsheet controls described in point 5 as Low.
- Composite risk rating 4-6—The inherent risk of the spreadsheet is moderate. Implement spreadsheet controls described in point 5 as Moderate.
- Composite risk rating 7-9—The inherent risk of the spreadsheet is high. Implement spreadsheet controls described in point 5 as High.

Note: In the Inventory UDAs Excel, the field risk is automatically calculated according the values for euros processed, purpose, complexity, frequency and number of users.

5 Control Requirements (Implement/assess spreadsheet controls)

Based on the composite risk ratings noted previously, the following spreadsheet controls are provided as a guideline or recommendation. Other controls may be considered necessary depending on the circumstances of the organization and its use of spreadsheets.

ID	CONTROL	DESCRIPTION	Composite risk rating		
			LOW	MODERATE	HIGH
1	UDAs-Security standards	UDAs policies and procedures concerning security and processing integrity exist and are followed.	X	X	X
2	Version	Spreadsheets should use a standard naming convention and directory location to determine the final production version.	X	X	X
3	Access	Limit access to the spreadsheet by storing them on a network server and assigning appropriate access restrictions.	X	X	X
4	Back-up	All spreadsheets should be saved in network drive that are regularly backed-up and tested for recovery.		X	X
5	Documentation	Descriptions should be maintained (in a tab within the spreadsheet) so the purpose, business description, objectives, instructions and functions of the spreadsheet are identified and communicated to all users and developers.		X	X
6	Change Control	Processes should be in place to identify and record all changes (data, lines, format, formulas, etc) to determine that the spreadsheet functions as designed. Including documenting the change in a tab within the spreadsheet.			X
7	Testing	Formally test the spreadsheet to confirm that the spreadsheet processing and related output is functioning as intended.			X
8	Input	Controls should exist to reconcile the input of data to the output of data, to confirm that data are input completely and accurately. For Low/Moderate complexity spreadsheets these controls are primarily manual in nature and scope. For High complexity spreadsheets formal reconciliation of input/output data should	X	X	X

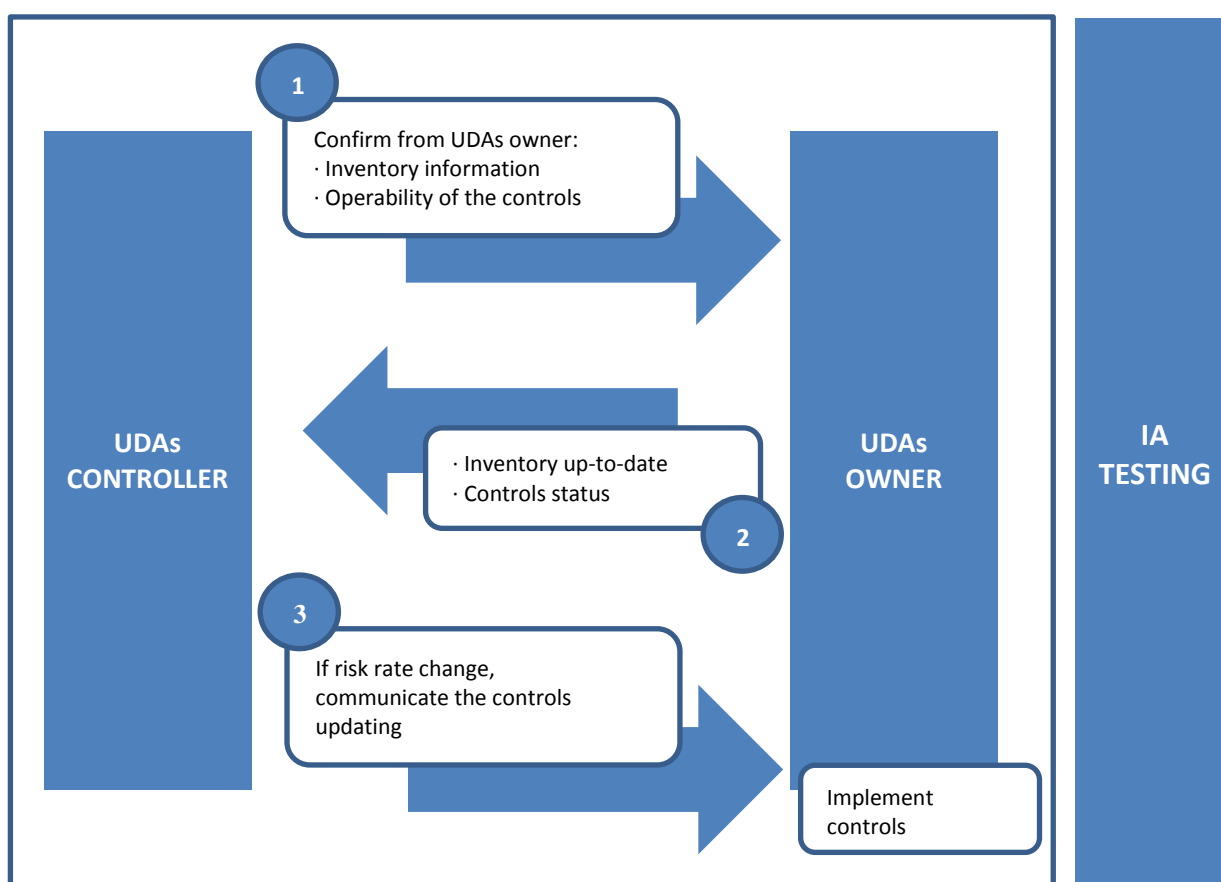
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ID	CONTROL	DESCRIPTION	Composite risk rating		
			LOW	MODERATE	HIGH
		be performed and maintained to support the conclusions reached.			
9	Security and integrity of data	Prevent unauthorized or inadvertent changes to the spreadsheet by “locking” or protecting sensitive cells that are important for data processing, such as formulas and master data.		X	X

On a annually basis, in the scope of ICFR testing, a sample of UDAs will be tested.

6 UDAs functions and responsibilities

Annually



7 Ownership

The responsible for owning and maintaining the policy will be Internal Audit Department (Compliance Office).

The responsible for maintaining the inventory will be the UDAs controller:

- HQ: Natalia Igualador
- BU Spain: Belen Malo
- BU CEE: [Pending roll out]
- BU BENELUX: [Pending roll out]

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- BU ITALY: [Pending roll out]
- BU LATAM: [Pending roll out]

The UDAs owner will be the responsible for implementing the controls and validate annually the operability of the controls.

On a annually basis the IA Department will perform the UDAs testing (ICFR testing).

8 Policy and inventory review schedule

The policy will be updated and reviewed on annual basis and on demand for each changes impacting on financial reporting process.

On a annually basis the UDAs controller assigned by each business areas (Finance, Tax and IR&Treasury) be required to update the UDAs inventory.

9 Best practice to be followed by general users

To use UDAs safely and effectively, the general users are recommended to follow the practice below:

- **Familiarize with UDAs Policy** – The very first step for using UDAs is to familiarize with the UDAs control policy. Users must be able to know what is a UDA, who is the owner, what is the procedure to change the UDA, and whom should be contacted if the UDA is accidentally deleted / modified.
- **Avoid Unauthorized Access** – Users are recommended to utilize the security functions that come along with the software packages. For example, password protection features in Microsoft Excel spreadsheets. The passwords should not be disclosed to unauthorized parties and should be changed regularly.
- **Avoid Mistakes** – When using UDAs, it is important to use the correct versions before storing or processing the data. Wherever possible, manual reconciliation/verification on UDA output should be performed. In addition, users should consider incorporating input validation controls when developing or updating the UDAs to reduce to the possibilities of having incorrect results.

10 Records and Annexes

- Annex I - Inventory_UDAs

11 Approval of the procedure

Version	Corporate Area	Approved by		Approval date
V.1.2	Internal Audit	SVP Internal Audit	Reyes Fuentes	21.05.2015
	Finance	SVP Finance	Fran Morillo	10.06.2015

12 Updates

Version	Description	Author	Date created
v.1	Creation	NH Internal Audit	December 2014
v.2	Update	NH Internal Audit	May 2015

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